

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Red Oxx Mfg Inc

Montana Manufacturing Extension Center

Lab Testing Strengthens Company Marketing, Competitiveness

Client Profile:

Red Oxx Manufacturing, Inc., located in Billings, Montana, makes soft-sided luggage for hunters, travelers and outdoor people. It also offers customized 'corporate identity' bags with a high quality, embroidered logo for companies top-end employees and customers. The Billings plant and factory outlet employs 7 people and sells direct to the consumer using its website, trade shows, and its own retail floor space.

Situation:

One of the biggest challenges Red Oxx faces is competition from the import of cheap 'knock-off' imitations. The co-owners of Red Oxx are former military riggers and quite familiar with fabric quality and dependability. For those reasons, the company works hard to differentiate its product through better quality and building customer relationships. Red Oxx contacted the Montana Manufacturing Extension Center (MMEC), a NIST MEP network affiliate, for assistance in testing its PR5 Safari Beano carry-on bag.

Solution:

MMEC and its partner, MSU TechLink, were able to make connections with the Army Natick Soldier Center testing lab in Massachusetts where tests of Red Oxx's PR5 Safari Beano carry-on bag were run against an overseas competitor bag. MMEC worked with Red Oxx to complete the application and throughout the process compiled test data into easy-to-read Excel spreadsheets of the averaged test results. Connecting with the Natick Labs was a real opportunity for a small company to get world class testing. The lab used specialized equipment to grab, pull, and generally stress the complete PR5 and its broken out components.

In tests lasting about 3 weeks, experiments covered design, materials, and construction of the gear. Fabric strength, seam construction, and shoulder strap design were tested for strength before and after weathering. Red Oxx fabric withstood the weathering better than the competition, testing more than 3.5 times stronger after weathering and 2.5 times stronger even before weathering. The shoulder strap design, much stronger at the outset, suffered less after weathering. Red Oxx seams, while rated stronger both before and after weathering, were affected slightly more by weathering than the competition, a statistic that did not go unnoticed by a rigger's eye. Lab data confirmed that the Red Oxx bag has features superior to its overseas competitor. The numbers provided insight and are concrete. It also revealed a possible area for increasing quality. The resulting data compiled by MMEC enabled the company to clearly visualize important measurements for both business and marketing decisions, stimulating lots of things: exploration of new thread and concrete numbers to help build business, a nice add-on to marketing. Soldier Center is working on a second phase of tests on some thread issues. Like other manufacturers, Red Oxx is learning it cannot take its materials and suppliers for granted; it has suspected that the thread used 15 years ago is not the same quality today. The test results bear out that the seams, while strong, could be made stronger. Thread suppliers have

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been contacted about specifications and are sending samples for more testing, so there will be no question about the bag's superior quality. Management believes it uses high quality materials, but realizes measurable data puts credibility behind quality claims.

Lab data confirmed that the PR5 is a rugged airline carry-on bag that features locking pockets, an inner-locked compartment, and 12 color choices. It is one of 15 outdoor products receiving special "Gear of the Year" recognition this spring in an annual review by Outdoor Buyer's Guide. The company will post the positive test results on its website and use it in marketing. Combined with the attention from the 'Gear of the Year' recognition, it anticipates that sales will increase by more than 5 percent.

Results:

- * Fabric tested more than 3.5 times stronger than competition after weathering and 2.5 times stronger than before weathering..
- * Stronger shoulder strap design after weathering.
- * Anticipated increased sales by more than 5 percent.
- * Improved quality of product.
- * Improved quality of thread used in seams.
- * Received Outdoor Buyer's Guide 'Gear of the Year' award.

Testimonial:

"If I've learned anything from MMEC, it's put a number to it -- another take away from Lean learnings I've received from the MEP center. Measuring things is important in business -- financials, strength, throughput, and capacity. No matter if the number is good, bad, or ugly; and if it's ugly, find out how to make it good."

Jim Markel, CEO and Co-owner